

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number  
**WO 2005/047438 A1**

(51) International Patent Classification<sup>7</sup>: **C10L 3/10**,  
B01D 15/00, B01J 20/02, 20/32, C07C 29/76

(21) International Application Number:  
PCT/GB2004/004593

(22) International Filing Date: 29 October 2004 (29.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0325769.8 5 November 2003 (05.11.2003) GB  
0414160.2 24 June 2004 (24.06.2004) GB

(71) Applicant (for all designated States except US): **JOHNSON MATTHEY PLC** [GB/GB]; 2-4 Cockspur Street, Trafalgar Square, London SW1Y 5BQ (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CARNELL, Peter, John, Herbert** [GB/GB]; 50 Hartburn Village, Stockton on Tees, Cleveland TS18 5DP (GB).

(74) Agents: **GIBSON, Sara, Hillary, Margaret** et al.; Intellectual Property Department, Johnson Matthey Catalysts, P.O. Box 1, Belasis Avenue, Billingham, Cleveland TS23 1LB (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



**WO 2005/047438 A1**

(54) Title: REMOVAL OF MERCURY COMPOUNDS FROM GLYCOL

(57) Abstract: The invention is a process for removing mercury compounds from a glycol- or alcohol-containing liquid absorbent stream which contains mercury compounds, especially a glycol stream which has been used in a glycol drying plant for removing water from natural gas streams. The process comprises contacting the mercury-laden liquid absorbent stream with a bed of solid absorbent particles, comprising a sulphided metal, optionally supported on support material, or sulphur supported on carbon.

Best Available Copy